RESPONSE TO COMMENTS RECEIVED REGARDING NPDES PERMIT RENEWAL FOR SIMPSON TACOMA KRAFT

The following comments were received by Citizens for a Healthy Bay.

1. *Ecology should mandate language that requires a study of conversion to and strongly encourage movement towards the goal of TCF technology to facilitate zero discharge of dioxins and other pollutants into Commencement Bay.*

Response:
The study referred to here represents a step in the process of evaluating the feasibility of TCF bleaching technology. Ecology has committed to pursuing technologies and approaches to pulp production that will result in continuing reductions in the amount of dioxins produced. The study language in the permit will be changed to make it clear that the required feasibility study must be amenable to TCF bleaching technology. It is important to note that the feasibility study requirement goes beyond the Federal Requirements specified for this mill. This is a step in the direction to determine options available to minimize the discharge of chlorinated dioxins into the receiving water. The conversion to 100% chlorine-dioxide bleaching has resulted in a substantial reduction of chlorinated organics in the discharge. Dioxin levels are currently not detected in the final effluent and TCDD is not detected in the bleach plant effluents. Looking at the feasibility for extended delignification is, in Ecology's opinion, reasonable at this time.

2. *The health threat posed by dioxins needs to be strongly addressed in the permit, and this and other permits should indicate that levels of dioxins are expected to decrease as new technology becomes available.*

Response:
Ecology has evaluated health threats in NPDES permits through a reasonable potential to violate water quality and human health criteria analysis. There was not a reasonable potential to violate the water quality or human health criteria therefore the technology based limit from the federal effluent guidelines was included in the permit.

3. *The permit limits for pH should be more closely aligned with the state water quality standard.*

Response:
pH was evaluated against the water quality criteria. The Limits included in the permit are more stringent than Federal requirements.

4. *We do not feel that AKART is being satisfied until the facility has upgraded to TCF technology, therefore a mixing zone is not appropriate for this permit. Simpson should be required to meet water quality standards at the end of the pipe. At the very least, there should be sunset language in the permit indicating that mixing zones are being phased out.*

Response:
Ecology has relied on the federal effluent guidelines for the determination of AKART. The Ecology policy is to accept Best Available Technology (BAT) economically available (promulgated within the last ten years) as being AKART. Ecology will re-look at that policy in regards to this facility when the feasibility study (see response number 1) results are submitted. The issue of mixing zones is currently defined in State regulations at WAC 173-201A-100 and is available to dischargers using AKART.

5. *We feel that checking a concrete structure [outfall], which is susceptible to the corrosive effects of marine water only once in a 6-year permit cycle is not frequent enough to detect deterioration.*

Response:
Permit cycle is 5 years. It is Ecology's engineering judgement that a 5 year inspection frequency is adequate for the outfall integrity in this receiving water environment.

6. *We concur with the required study of the bioaccumulative impact of the chlorinated organics in Simpson's effluent on fish tissue. The possibility of using data from the last permit to fulfill this requirement concerns us, as this study was done in 1994. We do not feel that it is acceptable to use 7-year-old data in this process, if new methodology has become available. The newest technology available should be used, and we should not assume that nothing has changed.*

Response:
A bioaccumulation monitoring study was conducted in 1994. There was no apparent accumulation of TCDD in the species tested. Since that study the amount of chlorinated hydrocarbons discharged by Simpson has been substantially reduced. The study included collection of native species in the vicinity of the outfall. The problem with that kind of study is there is no way to determine how long the organisms tested were subjected to the mill effluent. As proven and more sensitive methodology for determining bioaccumulation insitu becomes available; its use will be evaluated.

7. *Copper monitoring should be included in the permit, even if less frequently than the previous permit.*

Response:
Extensive monitoring has been performed with copper detection being well below standards. The permit does require Simpson to conduct a priority pollutant analysis (including copper) once each year.

<u>The following edited comment was received by Simpson Tacoma Kraft Co.</u>

8. *We object to proposed Condition S1.G, which requires Tacoma Kraft to conduct an extensive study on adding extended delignification to our elemental chlorine free (ECF) bleaching process, for several reasons... If Ecology wishes to pursue this concept, it should be done on an industry-wide basis.*

Response:
The Ecology policy to consider accept Best Available Technology (BAT) economically available (promulgated within the last ten years) as being AKART. This policy has been criticized by several citizen groups who claim that TCF bleaching technology is AKART. It is Ecology's position that the TCF technology is available but there is insufficient information available to the department to determine if it is reasonable. It is important that economic feasibility of going beyond the ECF bleaching technology required by the effluent guidelines be investigated to determine if ECF is actually AKART. Ecology did ask EPA for the economic information used for their BAT determination but could not obtain it. Ecology is requiring all non-TCF mills to investigate feasibility of improved pulp bleaching processes that reduce pollution.

<u>The following comments were received by Puget Soundkeeper Alliance</u>

9. *Puget Soundkeeper Alliance (PSA) does not support the use of mixing zones as a means for facilities to achieve water quality standards. The mixing zone should at least be decreased from the previous permit to ensure that the Clean Water Act is being followed by reducing the discharge of pollution.*

Response:
The comment is interesting. It would require the development of some guidance in order to consistently and fairly apply it to NPDES Permittees.

10. *The amount of dioxin released by Simpson currently is minute, in pictogram concentrations, to almost non-detectable amounts. Yet dioxin is a toxin that is bioaccumulative and harmful to marine and terrestrial life. Thus PSA encourages the Department of Ecology and Simpson to make a sustained and continued effort to decrease the amount of dioxin released.*

Response:
Comment noted. Ecology is trying to continue reducing dioxin discharges to the environment in all media.

11. *We also think that a study looking at TCF technology is warranted and should be a requirement in Simpson's new permit to be done at some point in the upcoming permit cycle. The study would enable Simpson and the Department of Ecology to look at the cost/benefits of having such a system compared to the one currently being operated.*

Response:
The proposed permit does contain a requirement to study the feasibility of adding extended delignification. We are trying to look at possible process changes in incremental steps that could be achievable. We know that extended delignification is available because there are mills in the northwest currently using it. But, since there are major differences in the products each of the mills in Washington make, Ecology cannot support a position to require that all of them use the same technology without additional information.

12. *Simpson should also have regular inspections that look at the safety and integrity of their mill. This would help eliminate spills such as the black liquor and effluent spills that contributed to some of the blemishes on their compliance record from the last permit.*

Response:
Regular water quality, air quality, and hazardous waste inspections are performed by Ecology staff to help reduce pollution Safety inspections are performed by the Dept. of Labor and Industry. The permit has been changed at section **S10**. such that expanded BMP requirement language is now present. This existing Federal requirement (40CFR 430.03) provides for increased spent liquor spill prevention and containment.

13. *We, finally, suggest that Simpson be required in the permit to address their continuing problem with filamentous bacteria, Thiothrix II.*

Response:
In the past Simpson has had a problem with Thiothrix in their treatment system. They have been able to control it and meet the TSS limits in the permit. The limitations for TSS require the mill to consistently operate their treatment system in an optimal manner. If the problem gets to the point where Simpson is unable to meet the TSS limits consistently, Ecology may require correction through an administrative action, such as an order.

<u>The following comments were received by Karen Dincola</u>

14. *The established fine schedule should be applied uniformly and the funds used to mitigate for environmental harm. Simpson already contributes a great deal of human and financial resources to habitat restoration efforts in the Bay, and these efforts are a fitting counterbalance to the*

considerable routine pollutant loading from the facility. Illicit discharges, though accidental, cause harm above and beyond day-to-day operations at the facility. Therefore, additional reparation is in order when permit conditions are not met.

Response:
Non-compliance with permit requirements will be enforced commensurate with the nature of the violation. Under existing environmental regulation, pollutors are responsible for past, present, and future environmental impacts resulting from their activities. And as such, responsible parties may be directed or independently remediate affected areas.

15. *Since the permit requirements governing chlorinated organics were largely determined by EPA, I ask that Ecology and EPA jointly review the required monitoring frequency and parameters, and that this review occur before the end of this permit cycle.*

Response:
Comment noted. Ecology will be reviewing monitoring data and needed changes in frequency and/or parameters will be considered in consultation with EPA. Ecology is planning to issue an administrative order requiring Simpson to conduct analysis for all seventeen 2,3,7,8 chlorine substituted PCDD and PCDF congeners on some of the bleach plant monitoring required in the permit.

16. *It would be in the best interests of the Bay and of the facility to spot check copper concentrations to insure that contamination is not being reintroduced. The mouth of the Puyallup River and its salt wedge estuary are already plagued by excess concentrations of copper and other metals. While copper monitoring may not become a permit requirement, the Fact Sheet should note the historic problems with copper at the facility's old outfall and acknowledge the potential, however greatly reduced, for reintroduction of copper contamination.*

Response:
Comment noted. Priority pollutant scans (which include copper) are required yearly in the proposed permit , and periodic sampling is taken during inspection of the mill by Ecology staff.

17. *An operational daily flow limit for the facility should be included in the permit. Pollutant loadings will vary with production, and merely limiting the daily load does not adequately regulate the concentrations discharged from the mill. The substantial loadings of conventional pollutants can probably be assimilated by the Bay as averaged over time, but individual days' discharges could stress the ecosystem during low streamflows, high surface temperatures, or certain tide conditions. I suggest that Simpson undertake to confirm its mixing zone boundaries by sampling the Bay during critical conditions. Perhaps a trigger could be set by a certain level of mortality in the required toxicity testing: if the percent survival in 100% effluent falls below 90% (to pick a number) for an indicator species, then more information about the mixing zone would also be required during this permit cycle.*

Response:
Loading is a function of the concentration and the flow. The proposed permit requires continuous monitoring of flow. Since the permit applies to both process and storm water it would be very difficult to include limitations on flow. It is Ecology's position that the mass loading limitations set in the permit implicitly take into account and regulate flow as it affects the water body.

The following comments were received by Washington Toxics Coalition.

18. *The study requirement only makes Simpson look at the feasibility of extended delig and not going completely chlorine free. It really doesn't take that much more work to study chlorine free since ED/OD is really a huge piece of the chlorine free switch. Including a switch in chemicals (to hydrogen peroxide or ozone) in the study is really not much more work. Can you change the scope of the study to require them to study going completely chlorine-free?*

Response:
See response number 1. It is Ecology's position that it would be more appropriate to require this study in smaller increments rather than the whole. Those mills that are at ECF will be required to conduct an economic evaluation of adding extended delignification and those mills currently using extended delignification will be required to conduct an economic evaluation of going to TCF bleaching technology. The state currently has no criteria for evaluating the reasonableness of a process change that is currently at non-detect for the target compounds and would still be at non-detect for the proposed changes. We are trying to look at possible process changes in incremental steps that could be achievable. We know that extended delignification is available because there are mills in the northwest currently using it. We think that TCF bleaching technology is available because there are mills in other states and countries using it. But, since there are major differences in the products each of the mills in Washington make, Ecology cannot support a position that requires all of the mills use the same bleaching technology.